wherein the proximal end of the shell does not extend proximally beyond the end surface of the end section of the bone when the core and shell are attached in the intramedullary canal.

2. The fracture fixation system of claim **1** wherein:

at least one of the fixation elements comprises a leg having a curved end that engages the end surface of the end section of the bone and/or the tissue.

3. The fracture fixation system of claim **1** wherein:

at least one of the fixation elements comprises a loop having an outer end that engages an end surface of the end section of the bone and/or the tissue.

4. The fracture fixation system of claim **1** wherein:

at least one of the fixation elements comprises a loop having an outer end that engages an end surface of the end section of the bone and/or the tissue, the loop including at least one section defining a hole.

5. The fracture fixation system of claim **1** wherein:

the bone is the ulna, and

the fixation elements are dimensioned to engage an end surface of the olecranon and/or tissue covering the end surface of the olecranon when the core and shell are attached in the intramedullary canal.

6. The fracture fixation system of claim **1** wherein:

at least two fixation elements are on opposite sides of the shell.

7. The fracture fixation system of claim **1** wherein:

the intramedullary core comprises a screw dimensioned to pass through a distal end of the shell.

8. The fracture fixation system of claim **7** wherein:

the fastener extends through an opening in the shell and an opening in the screw.

9. The fracture fixation system of claim **1** wherein:

the intramedullary core comprises a screw dimensioned to pass through the shell, and

the screw includes a first alignment guide and the shell includes a second alignment guide such that the rotational alignment of the screw and the shell can be controlled by aligning the first alignment guide and the second alignment guide.

10. The fracture fixation system of claim **1** wherein:

the intramedullary core comprises at least one longitudinal fin extending outward from a surface of the core.

11. The fracture fixation system of claim **1** wherein:

the shell is dimensioned to extend distally beyond the fracture line when the fixation elements engage the end surface of the end section of the bone.

12. The fracture fixation system of claim **1** further comprising:

an insertion arm that engages the proximal end of the shell for insertion of the shell in the intramedullary canal of the bone.

13. The fracture fixation system of claim **12** wherein:

the insertion arm engages the shell by way of threads on the insertion arm that engage threads on the shell.

14. The fracture fixation system of claim **12** wherein:

the insertion arm includes a drill guide for locating the fastener in the bone.

15. The fracture fixation system of claim **1** further comprising:

a second fastener engages a distal end of the shell and threadingly engages a proximal end of the core when attaching the shell to the core.

16. The fracture fixation system of claim **15** wherein:

a head of a second fastener engages the distal end of the shell.

17. The fracture fixation system of claim **15** further comprising:

a screw dimensioned for engaging the head of a second fastener and at least one fixation element after the shell is attached to the core.

18. A fracture fixation system for a bone having a fracture line between a central section of the bone and an end section of the bone, the system comprising:

an intramedullary core dimensioned for insertion in an intramedullary canal of the bone;

a hollow shell dimensioned for insertion in the intramedullary canal of the bone, the shell including a plurality of fixation elements that extend outwardly away from a proximal end of the shell; and

a fastener for attaching the shell to the core in the intramedullary canal,

wherein the fixation elements extend away from the fracture line of the bone when the core and shell are inserted in the intramedullary canal, and

wherein the fixation elements engage an end surface of the end section of the bone and/or tissue covering the end surface of the end section of the bone when the core and shell are attached in the intramedullary canal, and

wherein the fixation elements extend axially and radially away from the proximal end of the shell, and

wherein the system includes at least one fastener configured for attaching the core to the bone at a location on a side of the fracture line opposite the end section of the bone, and

wherein the core is configured such that portions of the core are located on both sides of the fracture line, and

wherein the proximal end of the shell does not extend proximally beyond the end surface of the end section of the bone when the core and shell are attached in the intramedullary canal.

19. The fracture fixation system of claim **1** wherein:

the shell includes three or more fixation elements.

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